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September 22, 1994

RECEIVED
SEP 22 1994
FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

Mr. William F. Caton
Acting Secretary
Federal Communications Commission
1919 M Street, N.W.
Room 222
Washington, D.C. 20554

Re: Ex Parte Presentation
CC Docket No. 92-166

Dear Mr. Caton:

On September 22, 1994, the undersigned counsel for Mobile Communications Holdings, Inc. (MCHI) and Gerald Helman, Vice President, International Policy and Programs, MCHI, met with James Coltharp. The discussion focused on the "Joint Proposal and Settlement Agreement" in CC Docket 92-166 to which MCHI is a party. Attached hereto are written materials that were provided to Commission Staff at the meeting.

Respectfully submitted,

Jill Abeshouse Stern

cc: James Coltharp

No. of Copies rec'd 0+1
List A B C D E

SUMMARY OF MCHI'S FEEDER LINK PRESENTATION

- Ellipso is one of three MSS systems (MCHI's ELLIPSO, Loral Qualcomm Partnership's GLOBALSTAR, and Constellation Communication's ARIES) that finds that its concept for distributed, global mobile satellite service is only technically and operationally practical if its feeder links (those links connecting the satellite with the ground network entry point) operate at frequencies below Ka band. MCHI joins LQP and Constellation in seeking C-band spectrum for MSS feeder links and intends to use and, as appropriate, share any adequate C-band spectrum made available.

- MCHI furthermore seeks, and it is our understanding that Loral Qualcomm Partnership and Constellation Communications also support, the allocation of feeder link uplink and downlink spectrum in both C and Ku band to MSS feeder link use. We believe such action would designate adequate resource for MSS use for the next decade. It would also simplify feeder link band sharing, and make available more bandwidth for feeder links than is available in only C-band.

- For uplinks, MCHI has identified the Aeronautical Radio Navigation Service bands (5000 - 5250 MHz in C-band and 15.4 - 15.7 GHz in Ku band) as good candidates for co-primary MSS feeder link uplinks, based upon simpler coordination requirements in these bands and the significant difficulty in finding other uplink spectrum below Ka band.

- For downlinks, we have also identified the international allotment plan uplink bands (6725 - 7025 MHz in C-band and 12.75 - 13.25 GHz in Ku band) as good candidates for MSS downlinks, based upon recent ITU studies showing the feasibility of using these bands.

- For any C or Ku band proposed for allocation to MSS feeder link use, such as, for example, the bands cited above, we urge that the FCC seek a co-primary MSS feeder link allocation in the appropriate direction for the complete band.

- MCHI seeks at least 300 MHz of spectrum in C or Ku bands for each feeder link direction in order to implement the technological and economic efficiencies inherent in the Ellipso System. These include a reduced complement of ground terminals — Ellipso requires only 3 or 4 in the United States — and low cost service to handheld terminals. The availability of only 250 MHz of feeder link spectrum in either direction would not permit us to realize our objectives and vision for the Ellipso System.

BRIEFING PAPER
FINANCIAL QUALIFICATIONS ISSUE

- The September 9, 1994 "Joint Proposal and Settlement Agreement" reflects agreement among four of the five Big LEO applicants with respect to a financial qualifcations standard that comports with the financial realities of financing a global satellite system and will assure that licensees move forward expditiously with system implementation. Loral did not object to the financial standard in its September 13 filing.

- The Agreement provides for a showing of financial preparedness at the time of licensing, with a requirement to demonstrate strict financial qualifications for 25% of the constellation one year after grant. In addition, permittees must meet strict milestone schedules for construction, launch and system operation.

- The financial standard set forth in the Agreement benefits both large and small companies, reflects an accommodation reached after extensive negotiations between the parties, and is a material condition of the Agreement that the Commission should hesitate to reject.

- Under the spectrum sharing approach set forth in the Agreement, all of the LEO systems can be accommodated so any concern about spectrum warehousing is mooted. Unlike situations involving limited orbital slots and mature satellite industries (where strict financial standards have been applied), all of the LEO systems will have sufficient spectrum to begin operations under the proposed sharing plan.

- The proposed financial standard is consistent with Commission precedent relating to new satellite services, including NVNG MSS, RDSS, DBS and private international satellite systems. In the satellite field, the Commission has historically provided a flexible financial standard tailored to the particular circumstances to facilitate implementation of new, innovative satellite services.

- Application of the strict domsat standard would discriminate against small businesses which do not typically have a balance sheet reflecting assets from other lines of business unrelated to the satellite project. As a practical matter, established, large corporations would only need display a balance sheet with no irrevocable commitment. In contrast, small companies would be required to demonstrate irrevocability. In other words, the playing field would not be level. The Commission should not foreclose participation by small and minority businesses, which participation is a national policy ojective supported consistently by Congress and successive administrations.

- As a practical matter, if the Commission is to expedite licensing of the Big LEO systems, it will not be practicable to impose a strict domsat standard at this late date, requiring fully negotiated irrevocable debt or equity commitments (from companies that do not intend to rely on a balance sheet test) within a short amendment period (e.g. 30 days.) Loans or equity commitments of the magnitude required cannot be negotiated, drafted and executed within an artificial 30 day time-frame.

- Finally, the FCC should not anticipate the marketplace. All applicants will have to go to the financial markets for funding. None will rely on existing corporate resources for more than a small fraction of overall cost. The marketplace should be allowed to reach its own judgment regarding the merits of competing systems, Success will be reflected in the ability of an applicant to obtain the financing needed to meet stated construction, launch and operational milestones.

BEFORE THE

Federal Communications Commission

WASHINGTON, D.C. 20554

In the Matter of	)	
	)	
Amendment of the Commission's Rules	)	CC Docket No. 92-166
to Establish Rules and Policies	)	
Pertaining To a Mobile-Satellite	)	
Service in the 1610-1626.5/	)	
2483.5-2500 MHz Frequency Bands	)	

To: The Commission

JOINT PROPOSAL AND SUPPLEMENTAL COMMENTS

Constellation Communications, Inc., Mobile Communications Holdings, Inc. (successor in interest to Ellipsat Corp.), Motorola Satellite Communications, Inc. and TRW Inc., hereafter collectively referred to as the "Parties", hereby submit for the Commission's adoption the attached Joint Proposal and Settlement Agreement ("Joint Proposal") in this proceeding.

In the Joint Proposal, the Parties have agreed upon fair and workable solutions to most of the open issues in this proceeding. In this regard, each of the Parties has made compromises on different issues so that an agreement could be executed that best meets the individual needs of each. The spectrum sharing approach in this Agreement will facilitate the Commission's licensing of all of the qualified non-geostationary

mobile satellite applicants considered part of the June 3, 1991, processing group, and thereby avoid mutual exclusivity. This spectrum sharing approach, in conjunction with the other agreements set forth in the Joint Proposal, provide a reasonable opportunity for each of these applicants to enter into and compete in the new mobile satellite services marketplace throughout the world and will facilitate international coordination of these systems through a global accommodation of spectrum needs.

The Parties believe that the approaches set forth in the Joint Proposal -- the result of many months of negotiations -- will serve the public interest by greatly facilitating the Commission's deliberations, expediting the licensing of proposed systems, and providing for a competitive marketplace and manageable spectrum environment. The Parties therefore urge the Commission to adopt all of the approaches outlined in the Joint Proposal not only because they represent the most workable solution to the complicated matters involved, but also because they represent a good balance of interests and concerns by those most likely to be affected by the Commission's action in this proceeding.[1/]

1/ Loral/Qualcomm Partnership, L.P. participated throughout most of these negotiations but indicated that it was not willing to agree to all of the provisions contained in the Joint Proposal.

Wherefore the Parties urge the Commission to adopt the provisions set forth in the Joint Proposal in CC Docket 92-166.

Respectfully submitted,

Constellation Communications, Inc.

Robert A. Mazer, Esq.
Counsel for Constellation Communications, Inc.

Motorola Satellite Communications, Inc.

Philip L. Malet, Esq.
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Mobile Communications Holdings, Inc.

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TRW Inc.

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September 9, 1994

CERTIFICATE OF SERVICE

I, Philip L. Malet, hereby certify that copies of the foregoing Joint Proposal and Supplemental Comments was served by first-class mail, postage prepaid, this 9th day of September 1994, on the following persons:

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Philip L. Malet

* Delivery by hand.

JOINT PROPOSAL AND SETTLEMENT AGREEMENT

This Joint Proposal and Settlement Agreement ("Agreement") dated this 8th day of September 1994, by and between Constellation Communications, Inc. ("**Constellation**"), Mobile Communications Holdings, Inc. ("**MCHI**", successor in interest to Ellipsat Corp.), Motorola Satellite Communications, Inc. ("**Motorola**") and TRW Inc. ("**TRW**") (collectively referred to herein as the "Parties") is being entered into for the purpose of settling their differences and submitting a joint proposal to the Federal Communications Commission ("FCC" or "Commission") in CC Docket No. 92-166.

For the purpose of this Agreement, an "MSS permittee/licensee" means those non-geostationary systems considered part of the June 3, 1991 processing group established by the FCC for the Above 1 GHz Mobile Satellite Service ("MSS") applicants.

For the purpose of this Agreement, a "CDMA system" and a "TDMA system" means an MSS permittee/licensee which uses CDMA or TDMA/FDMA modulation techniques, respectively.

The Parties hereby submit to the FCC in CC Docket No. 92-166 the following points of agreement between them:

1. Band Segmentation Plan

(a) Subject to Sections 3, 5, 6 and 7, the 1610-1626.5 MHz band should be segmented as follows:

(1) 1610-1621.35 MHz	Shared among the CDMA systems (Constellation, MCHI, TRW and Loral/QUALCOMM Partnership ("LQP")).
(2) 1621.35-1626.5 MHz	Exclusive use by the TDMA system.

(b) Constellation, MCHI and TRW agree to operate as CDMA systems and no CDMA system shall be allowed to change to a TDMA system.

(c) The entire 2483.5-2500 MHz band should be assigned to and shared by the CDMA systems.

(d) The aforementioned bands should only be assigned to non-geostationary MSS systems.

(e) If the TDMA system ceases to hold its construction permit or license, then the CDMA systems should gain access to the entire 1610-1626.5 MHz band.

(f) If all of the CDMA systems cease to hold their construction permits or licenses, then the TDMA system should gain access to the entire 1610-1626.5 MHz band.

(g) Each CDMA MSS permittee/licensee should be authorized to construct its system over the entire 1610-1626.5 MHz and 2483.5-2500 MHz bands, and the TDMA MSS permittee/licensee should be authorized to construct its system over the 1616-1626.5 MHz band.

2. Avoidance of Mutual Exclusivity

The adoption of the terms of this Agreement by the FCC avoids mutual exclusivity in this proceeding.

3. Resolution of GLONASS Issue

The following is based upon the information received by the Parties on the recent discussions between the United States and the Russian Administration regarding the coordination of the GLONASS system.

(a) The Parties understand as follows:

(1) An agreement on GLONASS CA code spectrum utilization and implementation timing between the United States and Russia will be concluded; and

(2) The standards for the use of GLONASS signals for aeronautical radionavigation will be established by the RTCA, Inc. ("RTCA") and in the U.S., will be adopted or rejected by the Federal Aviation Administration ("FAA"). Engineering criteria, such as receiver protection criteria, aircraft operational scenarios, and methods for determining utilization of GLONASS (e.g., protection of individual channels vs. navigation integrity) and other criteria will be developed by the RTCA. It is anticipated that the RTCA criteria will be adopted by the FAA.

(b) If GLONASS is operating the CA code at no higher than Channel +6 (1605.375 MHz center frequency), and the EIRP emissions level for MSS mobile earth stations which are required to protect GLONASS receivers utilizing the CA code is set at no lower than -70 dBW/4 kHz, then no adjustment for GLONASS operations to the band segmentation plan set forth in Section 1 above is necessary.

(c) Until such time as 3(b) occurs, the MSS permittees/licensees should share the burden caused by the loss of the use of any spectrum impaired by GLONASS operations and not available for MSS in the 1610-1626.5 MHz band, and any such burden should be equitably apportioned among the CDMA and TDMA systems in a manner to be determined as outlined below:

(1) Once the events identified in 3(a) above have occurred, the Parties agree to negotiate in good faith for a period of 60 days to determine the amount of spectrum above 1610 MHz which is likely to be impaired for MSS operations and to reach agreement on how to equitably apportion the burden of the loss of the use of any such impaired spectrum. Any MSS permittee/licensee not a Party hereto should be required by the FCC to participate in these negotiations in good faith.

(2) If all the events identified in 3(a) above have not occurred by April 1, 1995, the negotiations identified in

3(c)(1) above should promptly begin based on the information available at that time, unless all Parties agree to postpone the negotiations at that time.

(3) At the conclusion of the 60 day period identified in 3(c)(1), if agreement is not reached, the Parties will file within 10 days a joint request to the FCC to resolve the issue on an expedited basis.

(4) In order to make a determination as to whether the use of any MSS spectrum is impaired by GLONASS operations, the MSS permittees/licensees and, if necessary, the FCC should consider the following factors:

- GLONASS receiver specifications and interference susceptibility criteria and method of calculating navigational capability;
- MSS out-of-band emissions limitations;
- Practicability of employing filters on MSS terminals (volume, weight and cost);
- Extent to which GLONASS channels above Channel +6 will be used;
- Satellite-to-satellite over-the-horizon (GLONASS into MSS) interference issues;
- Extent to which the impaired spectrum can be used for some commercial MSS applications by the MSS permittees/licensees; and
- Any other relevant factors.

(5) The equitable apportionment of the burden caused by the loss of the use of impaired spectrum should take into account maximization of the use of the available

spectrum by licensed systems with due regard to channelization of the systems, the time frame for any modification to the GLONASS frequency plan, the schedule for commencement of commercial operations by the licensed MSS systems, and the possible reduction in available MSS spectrum as a result of international coordination with MSS systems.

(6) Any such band plan to address spectrum impairment would only take effect if by the time the second CDMA system certifies that it has begun providing "Commercial MSS Service," GLONASS is operating in such a manner as to impair MSS operations above 1610 MHz as determined pursuant to this Section 3.

(7) "Commercial MSS Service" is defined for each system as the launch and operation of the minimum number of satellites through which space segment capacity can be utilized to provide two-way voice service for which revenues are generated; provided however, that the operating satellites represent at least 25 percent of the authorized fully operational satellite constellation.

(8) MSS satellite systems and associated handsets shall have the capability to operate within the spectrum plan determined pursuant to this Section 3 to the extent such operation is required.

(9) The spectrum plan developed pursuant to this Section 3 should remain in effect until 3(b) above has occurred or until otherwise agreed to by the MSS permittees/licensees.

4. CDMA Coordination Procedures and Timing

(a) All CDMA systems should attempt to coordinate in accordance with the procedures and mechanisms set forth in the attached relevant portions of the negotiated rulemaking report. CDMA

MSS permittees/licensees will use their best efforts to agree upon baseline coordination parameters.

(b) CDMA MSS permittees/licensees will attempt to coordinate their systems to maximize the channel capacity of their respective systems.

(c) The coordination process should begin within thirty days of the grant of a construction permit to the second CDMA system and following completion of initial coordination CDMA MSS permittees/licensees may amend system designs accordingly.

5. Subsequent Spectrum Assignments (If only One CDMA System Becomes Operational)

If only one of the CDMA systems and the TDMA system become operational, all or a portion of the 1618.25-1621.35 MHz band would be available for assignment or reassignment only to the two remaining MSS systems in the U.S. (with any recoordination throughout North America as may be necessary) based upon a showing of need. Either system operator can petition the FCC to open a proceeding to consider such reassignment at any time that it is clear that at most one CDMA system will become operational.

6. Out-of-Band Emissions Mask Between CDMA and TDMA Band Segments

The MSS permittees/licensees will enter into coordination discussions and negotiate in good faith for a period of 60 days in conjunction with the negotiations involving the GLONASS band plan as set forth in Section 3, provided however, that such negotiations are to begin no later than April 1, 1995, in order to develop an emissions mask between the CDMA and TDMA band segments pursuant to the following statement of principles:

(a) The recognition that the primary MSS uplink transmissions and, to the maximum extent technically and economically practicable, the secondary MSS downlink transmissions, are to

be protected from interference across the CDMA/TDMA band segment boundary; and

(b) To the extent that a guard band may be required, the equitable sharing of the burden among MSS permittees/licensees of any loss or impairment of use of MSS spectrum resulting from interference caused by CDMA systems to the TDMA system, and vice versa, operating in adjacent segments within the 1610-1626.5 MHz band.

Absent an agreement of the MSS permittees/licensees, the dispute will be jointly presented to the FCC for expeditious resolution within 10 days of the end of the 60 day negotiating period.

7. Global Band Segmentation Sharing Requirement

(a) In North America,[1] operations by MSS permittees/licensees would be limited to the same spectrum assignments permitted in the U.S. as set forth in Sections 1 and 5, above.

(b) For the period of time specified in 7(d) below, outside of North America, MSS permittees/licensees would be authorized to operate their systems as follows:

(1) CDMA systems would be limited to the 1610-1619.75 MHz band; and

(2) The TDMA system would be limited to the 1619.75-1626.5 MHz band.

(c) All U.S. international coordination activity should be based upon the band segmentation plans set forth in 7(a) and 7(b) above.

1/ For purposes of Sections 5 and 7, North America means ITU Region 2 north of 14 degrees N. Latitude.

(d) The requirements and restrictions of 7(b) above will not apply after the earlier of the following dates:

(1) Two years after the first U.S. MSS permittee/licensee begins providing "Commercial MSS Services," as defined in Section 3(c)(7); or

(2) By the time the second U.S. MSS permittee/licensee begins providing "Commercial MSS Services," as defined in Section 3(c)(7).

(e) The FCC should provide that no U.S. MSS permittee/licensee can seek or accept an exclusive assignment of the entire 1610-1626.5 MHz band segment or otherwise enter into any arrangement that would exclude other MSS systems from providing service in any foreign country.

8. Financial Qualifications Standard

(a) Each system applicant must show financial preparedness, including reliance on projected revenues and future public offerings, in conjunction with the FCC's adoption of defined progress milestones in order to be found sufficiently qualified to obtain a construction permit.

(b) Within one year from the date of grant of its construction permit, each MSS permittee/licensee must demonstrate to the FCC that it meets the FCC's Domestic Fixed Satellite Service financial standard (current assets, which need not be committed to the project, and/or committed outside financing) sufficient to construct, launch and operate for one year at least 25 percent of the total authorized fully operational satellite constellation and TT&C ground segment.

9. U.S. Coverage Requirement

Each CDMA and TDMA system should be capable of providing MSS on a continuous basis throughout all fifty states, plus Puerto Rico and

the U.S. Virgin Islands (i.e., that at least one satellite will be visible above the horizon at an elevation angle of at least 5 degrees at any point).

10. Global Coverage Requirement

Each CDMA and TDMA system should be capable of providing MSS to all areas of the world between 70 degrees North and 55 degrees South Latitudes at least 75 percent of every 24-hour period (i.e., that at least one satellite will be visible above the horizon at an elevation angle of at least 5 degrees for at least 18 hours each day).

11. Implementation Milestones

The FCC should adopt the following milestones:

(a) Commencement of construction milestones:[2]

2/ Commencement of construction must require more than the signing of a contract with a satellite manufacturer. All MSS permittees/licensees shall, within 10 days after a required implementation milestone as specified in the system authorization, certify to the Commission that the milestone has been met or notify the Commission by letter that it has not been met. Certification of meeting a milestone shall include specific information on the progress of satellite design, ordering of system parts, and financial expenditures toward satellite construction. At its discretion, the Commission may require the submission of additional information (supported by a person or persons with knowledge thereof) to demonstrate that the milestone has been met. It is anticipated that MSS permittees/licensees will submit this information pursuant to confidentiality requests. If any such request is denied by the FCC, parties would only be entitled to review this information subject to a suitable protective order.